

CogniTech Corporation Capabilities Statement

About CogniTech

Cognitech Corporation, a small software and informatics business, was founded in 1996 by Jerome Soller, PhD, after he worked several years for the Salt Lake VA Geriatric, Research, Education, and Clinical Center (GRECC) and Salt Lake VA Information Systems Center. CogniTech is located in Salt Lake City, Utah.

Past customers included:

- US Army,
- US Navy,
- US Air Force,
- US National Institutes of Health,
- US Department of Homeland Security,
- US National Science Foundation,
- Lockheed Martin,
- Utah Department of Health
- 3M Health Information Systems.

CogniTech has a Department of Defense approved accounting system, and most personnel have previously passed background checks.



**Intelligent systems for
healthcare**

CogniTech Corporation

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Our team

CogniTech contains an interdisciplinary team including software engineers/computer scientists, healthcare professionals, and scientists. Two of its employees are former VA employees.

Our Capabilities

CogniTech possesses unique capabilities, providing the VA with value in several technical and subject matter-specific areas. CogniTech and its staff have experience developing electronic patient record systems and decision support systems with particular expertise on emergency medical information systems and occupational health. Consultants provide additional expertise in specialized domains of natural language processing. Given its development of emergency medical services (EMS) software products used by the State of Utah and its collaboration with national EMS data initiatives, it is uniquely qualified to help put together a team to integrate EMS data with the VA patient record. It also has years of experience in knowledge-based expert systems.

Technical strengths include Java, XML, web services, relational database management systems, workflow management systems, rules-based expert systems, data mining, simulation technologies and standards, technologies and standards for advanced distributed learning, and decision support systems.

Products and Services

Pre-hospital Electronic Patient Record

Developed commercial web-based data collection and reporting software used by paramedics and other emergency responders throughout the State of Utah. This system was certified as gold-compliant by the National Emergency Medical Services Information Systems (NEMSIS) standards organization. Attempting to market this technology to other state and emergency agency customers, and has collaborated with the national EMS database effort. The system supports web services capabilities that enable third party systems to import or export patient care reports and demographics in XML using the SOAP protocol. Expertise capable of integrating pre-hospital patient records from its system and other standard-compliant systems throughout the country with VistA or the VA Health Data Repository.

Modeling and Simulation

For Army, Navy and DHS customers, CogniTech develop models and simulations of physical systems and threats, such as epidemics. In some cases, models were tied to economic and health outcomes.

Components of Electronic Patient Records

Software development experience includes the following technologies:

- Web services/WSDL/CORBA
- XML / XSL / Schematron
- Java programming language
- J2EE
- Relational databases / SQL / ODBC / JDBC
- Workflow/process management systems
- User interfaces for mobile devices

Real-time Decision Support

Developed real-time decision support systems for healthcare and military applications, using rules-based expert systems and probabilistic inference. Experience in a variety of knowledge-based systems and ontology technologies. CogniTech also developed a rules-based expert system to dynamically control interactive electronic patient user interfaces.

Data Warehouse/Data Mining

CogniTech has expertise in open source data warehouse tools and a variety of data mining approaches, algorithms, and technologies. CogniTech and its contractors also have expertise in Natural Language Processing (NLP).

Advanced Distributed Learning

For NIH and DHS customers, CogniTech develop prototypes for delivering training content to the following platforms:

- Computer Based Training (CBT),
- SCORM-compliant Web-based Training (WBT),
- Handheld computer training,
- Reference materials
- Interactive Voice Response System (IVR).